

CLAIMS:

What is claimed is:

1. An air-conditioning system for a cabin of a motorized vehicle comprising of an evaporator and desiccant, where said desiccant is downstream of evaporator, and said desiccant is a rotor that uses vehicle's excess heat to regenerate the desiccant.
2. An A/C system as set forth in claim 1 wherein the source of regeneration heat for the desiccant is hot air coming off the radiator that is routed into the rotor housing.
3. An A/C system as set forth in claim 1 wherein the source of regeneration heat for the desiccant is engine coolant exiting the engine block that is routed to a liquid-to-air heat exchanger to heat the regeneration air prior to entering the radiator.
4. An A/C system as set forth in claim 1 wherein the source of regeneration is hot engine exhaust, which after catalytic conversion which is routed to an air-to-air heat exchanger.
5. An A/C system as set forth in claim 1 wherein the source of regeneration is excess heat generated by a fuel cell.

6. A method of air-conditioning for a cabin of a motorized vehicle comprising of an evaporator and desiccant, where said desiccant is downstream of evaporator, and said desiccant is a rotor that uses vehicle's excess heat to regenerate the desiccant.